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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 09/915,682 | 07/26/2001 | Johannes Franciscus Adrianus Reniers | NL000445 | 7600 |

7590
U.S. Philips Corporation
580 White Plains Road
Tarrytown, NY 10591

12/04/2002

EXAMINER

VIGUSHIN, JOHN B

| ART UNIT | PAPER NUMBER |
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2827

DATE MAILED: 12/04/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/915,682

Applicant(s)

RENIERS, JOHANNES
FRANCISCUS ADRIANUS

Examiner

John B. Vigushin

Art Unit

2827

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 September 2002.
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3,5,6 and 9-12 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-3,5,6 and 9-11 is/are allowed.
- 6) ☒ Claim(s) 12 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☒ The proposed drawing correction filed on 13 September 2002 is: a) ☒ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s) _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

1. The present Office Action is responsive to Applicant's amended Response filed as Paper No. 12 on September 13, 2002 (Certificate of Mailing date: September 06, 2002). The Examiner acknowledges the Substitute Specification, which has been entered into the Application as Paper No. 13, the amendments to Claims 1-3, 5 and 6, the cancellation of Claim 4 and the addition of Claims 9-12. Accordingly, Claims 1-3, 5, 6 and 9-12 remain pending in the instant amended Application.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claim 12 is rejected under 35 U.S.C. 102(b) as being anticipated by Watanabe et al. (US 5,926,375).

Watanabe et al. discloses: a first printed circuit board (i.e., the alumina PGA package 11 in Fig. 1 and the left-most PGA package mounted on the upper surface of the motherboard of Fig. 4; col.2: 40-42) inherently including a first printed circuit (not shown) for connecting the chip thereon to circuit board 15, and a plurality of electroconductive pins 12 (col.2: 40-45); a second printed circuit board 15 (Fig. 1) including a second printed circuit 16, and a plurality of recesses 14 (col.2: 46-51) having an electroconductive inner surface formed in the second printed circuit board (col.2: 63-

65), wherein the plurality of electroconductive pins 12 are secured within the plurality of recesses 14 (Fig. 1; col.2: 61-67; col.3: 10-16).

Allowable Subject Matter

4. Claims 1-3, 5, 6 and 9-11 have been allowed.
5. The following is a statement of reasons for the indication of allowable subject matter:

As to Claims 1-3, 5, 6 and 9-11, patentability resides in *the electroconductive pins manufactured so as to be in one piece with said one printed circuit board*, in combination with the other limitations of base Claim 1.

6. As allowable subject matter has been indicated, applicant's reply must either comply with all formal requirements or specifically traverse each requirement not complied with. See 37 CFR 1.111(b) and MPEP § 707.07(a).

Conclusion

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not

mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

a) Igarashi (US 4,787,853) discloses mounting a PGA package 6 (Fig. 7) onto a circuit board 1 (Fig. 1) wherein the pins 7' of PGA package 6 are connected to board 1 through metallized recesses 2a (Figs. 1 and 2; col.3: 46-51).

b) Sano (JP01-270390 A) discloses an electronic component 3 whose pins 4 (74) are soldered into recesses 2 (62) in printed circuit board 1 (61) (Figs. 1 and 6-8; JPO English language Abstract).

c) JP59-121993 A discloses an electronic component 11 whose pins 12 are soldered into recesses 16' in printed circuit board 13 (Figs. 4-6).

d) Kweon et al. (US 5,450,289) discloses a chip-on-board package 32 (col.1: 55-59; col.3: 62-65) mounted into a recess 34 or 38 of printed circuit board 35 (Figs. 6-8; col.3: 66-col.4: 1; col.4: 12-22).

e) Branch et al. (US 3,105,869) discloses circuit boards 20 mounted on another circuit board 22 through leads 24 of circuit boards 20 soldered in the circuitized recesses 27 of circuit board 22 (Fig. 4; col.5: 50-58).

f) Väisänen (US 4,912,604) discloses a printed circuit board 2a with pins 2 formed in one piece with the printed circuit board 2a (col.2: 13-17), wherein pins 2 are inserted into apertures 9 of motherboard 11 (Fig. 7; col.2: 47-53).

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to John B. Vigushin whose telephone number is 703-308-1205. The examiner can normally be reached on 8:30AM-5:00PM Mo-Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David L. Talbott can be reached on 703-305-9883. The fax phone numbers for the organization where this application or proceeding is assigned are 703-308-7382 for regular communications and 703-308-7382 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0956.

John B. Vigushin
Examiner
Art Unit 2827

jbv
November 23, 2002

Albert W. Paladini 11-27-02
ALBERT W. PALADINI
PRIMARY EXAMINER